

Repeated Games

Game Theory Course:
Jackson, Leyton-Brown & Shoham

Repeated Games



- Many (most?) interactions occur more than once:

Repeated Games

- OPEC: Oil Prices
 - 20\$/bbl or less from 1930-1973 (2008 dollars)



Repeated Games

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 - 50\$/bbl by 1976

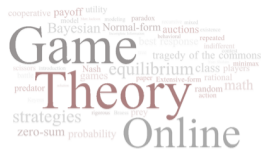


Repeated Games

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 - 90\$/bbl by 1982



Repeated Games



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 - 40\$/bbl or less from 1986 to 2002

Repeated Games



- OPEC: Oil Prices
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 - 50\$/bbl by 1976
 - 90\$/bbl by 1982
 - 40\$/bbl or less from 1986 to 2002
 - 100\$/bbl by late 2008 ...

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- Cooperative Behavior: Cartel is much like a repeated Prisoner's Dilemma
 - Need to easily observe each other's plays and react (quickly) to punish undesired behavior
 - Need patient players who value the long run (wars don't help!)
 - Need a stable set of players and some stationarity helps
 - constantly changing sources of production can hurt, but growing demand can help...